PAGE: 1

RAW SEQUENCE LISTING
PATENT APPLICATION *US/09/757,673*

DATE: 03/14/2001
TIME: 04:18:43

INPUT SET: S36507.raw

OIPE

03-09-01

This Raw Listing contains the General
Information Section and up to the first 5 pages.

```
 1                              SEQUENCE LISTING       ENTERED
 2
 3    (1)      General Information:
 4
 5         (i) APPLICANT: Wilson, James M.
 6                        Fisher, Krishna J.
 7
 8        (ii) TITLE OF INVENTION: Method for Recombinant Adeno-Associated
 9                  Virus-Directed Gene Therapy
10
11       (iii) NUMBER OF SEQUENCES: 4
12
13        (iv) CORRESPONDENCE ADDRESS:
14             (A) ADDRESSEE: Howson and Howson
15             (B) STREET: Spring House Corporate Cntr, PO Box 457
16             (C) CITY: Spring House
17             (D) STATE: Pennsylvania
18             (E) COUNTRY: USA
19             (F) ZIP: 19477
20
21         (v) COMPUTER READABLE FORM:
22             (A) MEDIUM TYPE: Floppy disk
23             (B) COMPUTER: IBM PC compatible
24             (C) OPERATING SYSTEM: PC-DOS/MS-DOS
25             (D) SOFTWARE: PatentIn Release #1.0, Version #1.30
26
27        (vi) CURRENT APPLICATION DATA:
28             (A) APPLICATION NUMBER: 09/757,673
29             (B) FILING DATE:
30             (C) CLASSIFICATION:
31
32       (vii) PRIOR APPLICATION DATA:
33             (A) APPLICATION NUMBER: 09/242,977
34             (B) FILING DATE:
35
36       (vii) PRIOR APPLICATION DATA:
37             (A) APPLICATION NUMBER: US 08/729,061
38             (B) FILING DATE: 10-OCT-1996
39
40      (viii) ATTORNEY/AGENT INFORMATION:
41             (A) NAME: Kodroff, Cathy A.
42             (B) REGISTRATION NUMBER: 33,980
43             (C) REFERENCE/DOCKET NUMBER: GNVPN.019CIP2USA
44
45        (ix) TELECOMMUNICATION INFORMATION:
46             (A) TELEPHONE: 215-540-9200
```

INPUT SET: S36507.raw

```
47              (B) TELEFAX: 215-540-5818
48
49
50
51   (2) INFORMATION FOR SEQ ID NO:1:
52
53       (i) SEQUENCE CHARACTERISTICS:
54           (A) LENGTH: 10398 base pairs
55           (B) TYPE: nucleic acid
56           (C) STRANDEDNESS: double
57           (D) TOPOLOGY: unknown
58
59      (ii) MOLECULE TYPE: cDNA
60
61
62
63      (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:
64
65   GAATTCGCTA GCATCATCAA TAATATACCT TATTTTGGAT TGAAGCCAAT ATGATAATGA    60
66
67   GGGGGTGGAG TTTGTGACGT GGCGCGGGGC GTGGGAACGG GGCGGGTGAC GTAGTAGTGT   120
68
69   GGCGGAAGTG TGATGTTGCA AGTGTGGCGG AACACATGTA AGCGACGGAT GTGGCAAAAG   180
70
71   TGACGTTTTT GGTGTGCGCC GGTGTACACA GGAAGTGACA ATTTTCGCGC GGTTTTAGGC   240
72
73   GGATGTTGTA GTAAATTTGG GCGTAACCGA GTAAGATTTG GCCATTTTCG CGGGAAAACT   300
74
75   GAATAAGAGG AAGTGAAATC TGAATAATTT TGTGTTACTC ATAGCGCGTA ATATTTGTCT   360
76
77   AGGGAGATCT GCTGCGCGCT CGCTCGCTCA CTGAGGCCGC CCGGGCAAAG CCCGGGCGTC   420
78
79   GGGCGACCTT TGGTCGCCCG GCCTCAGTGA GCGAGCGAGC GCGCAGAGAG GGAGTGGCCA   480
80
81   ACTCCATCAC TAGGGGTTCC TTGTAGTTAA TGATTAACCC GCCATGCTAC TTATCTACAA   540
82
83   TTCGAGCTTG CATGCCTGCA GGTCGTTACA TAACTTACGG TAAATGGCCC GCCTGGCTGA   600
84
85   CCGCCCAACG ACCCCCGCCC ATTGACGTCA ATAATGACGT ATGTTCCCAT AGTAACGCCA   660
86
87   ATAGGGACTT TCCATTGACG TCAATGGGTG GAGTATTTAC GGTAAACTGC CCACTTGGCA   720
88
89   GTACATCAAG TGTATCATAT GCCAAGTACG CCCCCTATTG ACGTCAATGA CGGTAAATGG   780
90
91   CCCGCCTGGC ATTATGCCCA GTACATGACC TTATGGGACT TTCCTACTTG GCAGTACATC   840
92
93   TACGTATTAG TCATCGCTAT TACCATGGTG ATGCGGTTTT GGCAGTACAT CAATGGGCGT   900
94
95   GGATAGCGGT TTGACTCACG GGGATTTCCA AGTCTCCACC CCATTGACGT CAATGGGAGT   960
96
97   TTGTTTTGGC ACCAAAATCA ACGGGACTTT CCAAAATGTC GTAACAACTC CGCCCCATTG  1020
98
99   ACGCAAATGG GCGGTAGGCG TGTACGGTGG GAGGTCTATA TAAGCAGAGC TCGTTTAGTG  1080
```

```
       100
       101  AACCGTCAGA TCGCCTGGAG ACGCCATCCA CGCTGTTTTG ACCTCCATAG AAGACACCGG   1140
       102
       103  GACCGATCCA GCCTCCGGAC TCTAGAGGAT CCGGTACTCG AGGAACTGAA AAACCAGAAA   1200
       104
       105  GTTAACTGGT AAGTTTAGTC TTTTTGTCTT TTATTTCAGG TCCCGGATCC GGTGGTGGTG   1260
       106
       107  CAAATCAAAG AACTGCTCCT CAGTGGATGT TGCCTTTACT TCTAGGCCTG TACGGAAGTG   1320
       108
       109  TTACTTCTGC TCTAAAAGCT GCGGAATTGT ACCCGCGGCC GCAATTCCCG GGGATCGAAA   1380
       110
       111  GAGCCTGCTA AAGCAAAAAA GAAGTCACCA TGTCGTTTAC TTTGACCAAC AAGAACGTGA   1440
       112
       113  TTTTCGTTGC CGGTCTGGGA GGCATTGGTC TGGACACCAG CAAGGAGCTG CTCAAGCGCG   1500
       114
       115  ATCCCGTCGT TTTACAACGT CGTGACTGGG AAAACCCTGG CGTTACCCAA CTTAATCGCC   1560
       116
       117  TTGCAGCACA TCCCCCTTTC GCCAGCTGGC GTAATAGCGA AGAGGCCCGC ACCGATCGCC   1620
       118
       119  CTTCCCAACA GTTGCGCAGC CTGAATGGCG AATGGCGCTT TGCCTGGTTT CCGGCACCAG   1680
       120
       121  AAGCGGTGCC GGAAAGCTGG CTGGAGTGCG ATCTTCCTGA GGCCGATACT GTCGTCGTCC   1740
       122
       123  CCTCAAACTG GCAGATGCAC GGTTACGATG CGCCCATCTA CACCAACGTA ACCTATCCCA   1800
       124
       125  TTACGGTCAA TCCGCCGTTT GTTCCCACGG AGAATCCGAC GGGTTGTTAC TCGCTCACAT   1860
       126
       127  TTAATGTTGA TGAAAGCTGG CTACAGGAAG GCCAGACGCG AATTATTTTT GATGGCGTTA   1920
       128
       129  ACTCGGCGTT TCATCTGTGG TGCAACGGGC GCTGGGTCGG TTACGGCCAG GACAGTCGTT   1980
       130
       131  TGCCGTCTGA ATTTGACCTG AGCGCATTTT TACGCGCCGG AGAAAACCGC CTCGCGGTGA   2040
       132
       133  TGGTGCTGCG TTGGAGTGAC GGCAGTTATC TGGAAGATCA GGATATGTGG CGGATGAGCG   2100
       134
       135  GCATTTTCCG TGACGTCTCG TTGCTGCATA AACCGACTAC ACAAATCAGC GATTTCCATG   2160
       136
       137  TTGCCACTCG CTTTAATGAT GATTTCAGCC GCGCTGTACT GGAGGCTGAA GTTCAGATGT   2220
       138
       139  GCGGCGAGTT GCGTGACTAC CTACGGGTAA CAGTTTCTTT ATGGCAGGGT GAAACGCAGG   2280
       140
       141  TCGCCAGCGG CACCGCGCCT TTCGGCGGTG AAATTATCGA TGAGCGTGGT GGTTATGCCG   2340
       142
       143  ATCGCGTCAC ACTACGTCTG AACGTCGAAA ACCCGAAACT GTGGAGCGCC GAAATCCCGA   2400
       144
       145  ATCTCTATCG TGCGGTGGTT GAACTGCACA CCGCCGACGG CACGCTGATT GAAGCAGAAG   2460
       146
       147  CCTGCGATGT CGGTTTCCGC GAGGTGCGGA TTGAAAATGG TCTGCTGCTG CTGAACGGCA   2520
       148
       149  AGCCGTTGCT GATTCGAGGC GTTAACCGTC ACGAGCATCA TCCTCTGCAT GGTCAGGTCA   2580
       150
       151  TGGATGAGCA GACGATGGTG CAGGATATCC TGCTGATGAA GCAGAACAAC TTTAACGCCG   2640
       152
```

INPUT SET: S36507.raw

```
153    TGCGCTGTTC GCATTATCCG AACCATCCGC TGTGGTACAC GCTGTGCGAC CGCTACGGCC    2700
154
155    TGTATGTGGT GGATGAAGCC AATATTGAAA CCCACGGCAT GGTGCCAATG AATCGTCTGA    2760
156
157    CCGATGATCC GCGCTGGCTA CCGGCGATGA GCGAACGCGT AACGCGAATG GTGCAGCGCG    2820
158
159    ATCGTAATCA CCCGAGTGTG ATCATCTGGT CGCTGGGGAA TGAATCAGGC CACGGCGCTA    2880
160
161    ATCACGACGC GCTGTATCGC TGGATCAAAT CTGTCGATCC TTCCCGCCCG GTGCAGTATG    2940
162
163    AAGGCGGCGG AGCCGACACC ACGGCCACCG ATATTATTTG CCCGATGTAC GCGCGCGTGG    3000
164
165    ATGAAGACCA GCCCTTCCCG GCTGTGCCGA AATGGTCCAT CAAAAAATGG CTTTCGCTAC    3060
166
167    CTGGAGAGAC GCGCCCGCTG ATCCTTTGCG AATACGCCCA CGCGATGGGT AACAGTCTTG    3120
168
169    GCGGTTTCGC TAAATACTGG CAGGCGTTTC GTCAGTATCC CCGTTTACAG GGCGGCTTCG    3180
170
171    TCTGGGACTG GGTGGATCAG TCGCTGATTA AATATGATGA AAACGGCAAC CCGTGGTCGG    3240
172
173    CTTACGGCGG TGATTTTGGC GATACGCCGA ACGATCGCCA GTTCTGTATG AACGGTCTGG    3300
174
175    TCTTTGCCGA CCGCACGCCG CATCCAGCGC TGACGGAAGC AAAACACCAG CAGCAGTTTT    3360
176
177    TCCAGTTCCG TTTATCCGGG CAAACCATCG AAGTGACCAG CGAATACCTG TTCCGTCATA    3420
178
179    GCGATAACGA GCTCCTGCAC TGGATGGTGG CGCTGGATGG TAAGCCGCTG GCAAGCGGTG    3480
180
181    AAGTGCCTCT GGATGTCGCT CCACAAGGTA AACAGTTGAT TGAACTGCCT GAACTACCGC    3540
182
183    AGCCGGAGAG CGCCGGGCAA CTCTGGCTCA CAGTACGCGT AGTGCAACCG AACGCGACCG    3600
184
185    CATGGTCAGA AGCCGGGCAC ATCAGCGCCT GGCAGCAGTG GCGTCTGGCG GAAAACCTCA    3660
186
187    GTGTGACGCT CCCCGCCGCG TCCCACGCCA TCCCGCATCT GACCACCAGC GAAATGGATT    3720
188
189    TTTGCATCGA GCTGGGTAAT AAGCGTTGGC AATTTAACCG CCAGTCAGGC TTTCTTTCAC    3780
190
191    AGATGTGGAT TGGCGATAAA AAACAACTGC TGACGCCGCT GCGCGATCAG TTCACCCGTG    3840
192
193    CACCGCTGGA TAACGACATT GGCGTAAGTG AAGCGACCCG CATTGACCCT AACGCCTGGG    3900
194
195    TCGAACGCTG GAAGGCGGCG GGCCATTACC AGGCCGAAGC AGCGTTGTTG CAGTGCACGG    3960
196
197    CAGATACACT TGCTGATGCG GTGCTGATTA CGACCGCTCA CGCGTGGCAG CATCAGGGGA    4020
198
199    AAACCTTATT TATCAGCCGG AAAACCTACC GGATTGATGG TAGTGGTCAA ATGGCGATTA    4080
200
201    CCGTTGATGT TGAAGTGGCG AGCGATACAC CGCATCCGGC GCGGATTGGC CTGAACTGCC    4140
202
203    AGCTGGCGCA GGTAGCAGAG CGGGTAAACT GGCTCGGATT AGGGCCGCAA GAAAACTATC    4200
204
205    CCGACCGCCT TACTGCCGCC TGTTTTGACC GCTGGGATCT GCCATTGTCA GACATGTATA    4260
```

RAW SEQUENCE LISTING
PATENT APPLICATION   US/09/757,673

INPUT SET: S36507.raw

```
206
207  CCCCGTACGT CTTCCCGAGC GAAAACGGTC TGCGCTGCGG GACGCGCGAA TTGAATTATG    4320
208
209  GCCCACACCA GTGGCGCGGC GACTTCCAGT TCAACATCAG CCGCTACAGT CAACAGCAAC    4380
210
211  TGATGGAAAC CAGCCATCGC CATCTGCTGC ACGCGGAAGA AGGCACATGG CTGAATATCG    4440
212
213  ACGGTTTCCA TATGGGGATT GGTGGCGACG ACTCCTGGAG CCCGTCAGTA TCGGCGGAAT    4500
214
215  TACAGCTGAG CGCCGGTCGC TACCATTACC AGTTGGTCTG GTGTCAAAAA TAATAATAAC    4560
216
217  CGGGCAGGCC ATGTCTGCCC GTATTTCGCG TAAGGAAATC CATTATGTAC TATTTAAAAA    4620
218
219  ACACAAACTT TTGGATGTTC GGTTTATTCT TTTTCTTTTA CTTTTTTATC ATGGGAGCCT    4680
220
221  ACTTCCCGTT TTTCCCGATT TGGCTACATG ACATCAACCA TATCAGCAAA AGTGATACGG    4740
222
223  GTATTATTTT TGCCGCTATT TCTCTGTTCT CGCTATTATT CCAACCGCTG TTTGGTCTGC    4800
224
225  TTTCTGACAA ACTCGGCCTC GACTCTAGGC GGCCGCGGGG ATCCAGACAT GATAAGATAC    4860
226
227  ATTGATGAGT TTGGACAAAC CACAACTAGA ATGCAGTGAA AAAAATGCTT TATTTGTGAA    4920
228
229  ATTTGTGATG CTATTGCTTT ATTTGTAACC ATTATAAGCT GCAATAAACA AGTTAACAAC    4980
230
231  AACAATTGCA TTCATTTTAT GTTTCAGGTT CAGGGGGAGG TGTGGGAGGT TTTTTCGGAT    5040
232
233  CCTCTAGAGT CGAGTAGATA AGTAGCATGG CGGGTTAATC ATTAACTACA AGGAACCCCT    5100
234
235  AGTGATGGAG TTGGCCACTC CCTCTCTGCG CGCTCGCTCG CTCACTGAGG CCGGGCGACC    5160
236
237  AAAGGTCGCC CGACGCCCGG GCTTTGCCCG GCGGCCTCA GTGAGCGAGC GAGCGCGCAG    5220
238
239  CAGATCTGGA AGGTGCTGAG GTACGATGAG ACCCGCACCA GGTGCAGACC CTGCGAGTGT    5280
240
241  GGCGGTAAAC ATATTAGGAA CCAGCCTGTG ATGCTGGATG TGACCGAGGA GCTGAGGCCC    5340
242
243  GATCACTTGG TGCTGGCCTG CACCCGCGCT GAGTTTGGCT CTAGCGATGA AGATACAGAT    5400
244
245  TGAGGTACTG AAATGTGTGG GCGTGGCTTA AGGGTGGGAA AGAATATATA AGGTGGGGGT    5460
246
247  CTTATGTAGT TTTGTATCTG TTTTGCAGCA GCCGCCGCCG CCATGAGCAC CAACTCGTTT    5520
248
249  GATGGAAGCA TTGTGAGCTC ATATTTGACA ACGCGCATGC CCCCATGGGC CGGGGTGCGT    5580
250
251  CAGAATGTGA TGGGCTCCAG CATTGATGGT CGCCCCGTCC TGCCCGCAAA CTCTACTACC    5640
252
253  TTGACCTACG AGACCGTGTC TGGAACGCCG TTGGAGACTG CAGCCTCCGC CGCCGCTTCA    5700
254
255  GCCGCTGCAG CCACCGCCCG CGGGATTGTG ACTGACTTTG CTTTCCTGAG CCCGCTTGCA    5760
256
257  AGCAGTGCAG CTTCCCGTTC ATCCGCCCGC GATGACAAGT TGACGGCTCT TTTGGCACAA    5820
258
```

SEQUENCE VERIFICATION REPORT
PATENT APPLICATION   *US/09/757,673*

INPUT SET: S36507.raw

Line	Error	Original Text